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## Article

# Personal Bankruptcy Law and Entrepreneurship

CESifo DICE Report

## Provided in Cooperation with:

Ifo Institute – Leibniz Institute for Economic Research at the University of Munich

*Suggested Citation:* Fossen, Frank M.; König, Johannes (2015) : Personal Bankruptcy Law and Entrepreneurship, CESifo DICE Report, ISSN 1613-6373, ifo Institut - Leibniz-Institut für Wirtschaftsforschung an der Universität München, München, Vol. 13, Iss. 4, pp. 28-34

This Version is available at:

<https://hdl.handle.net/10419/167235>

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## PERSONAL BANKRUPTCY LAW AND ENTREPRENEURSHIP<sup>1</sup>

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*Holland, the most unpolite Country in the World, uses Debtors with Mildness, and Malefactors with Rigour; England, on the contrary, shews Mercy to Murderers and Robbers, but of poor Debtors Impossibilities are demanded*

(Samuel Byrom, 1729, 15)

The introduction of the Insolvency Code in Germany in 1999 opened up the possibility for insolvent private persons to file for bankruptcy in order to obtain debt relief. The personal insolvency procedure involves a compliance period, during which debtors partly repay their debts. If debtors comply during this period, their remaining debt is discharged. In a reform of the Insolvency Code in 2014, the duration of the compliance period was reduced if the debtor meets certain conditions, with the intention of putting debtors on a faster track to a fresh start. Personal bankruptcy law is especially relevant for entrepreneurs, because for sole proprietors and partners of unincorporated partnerships, debts are personal liabilities, and because business loans tend to be large in comparison to consumer credits. Before 1999, entrepreneurs whose businesses failed were often left with a large amount of debt that they sometimes could not repay during their lifetime, discouraging them from making any real effort to do so.

<sup>1</sup> We would like to thank Judge Holger Martin for valuable discussions.

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### Effects of personal bankruptcy law on entrepreneurship

The option of personal insolvency and debt relief limits the downward risk of entrepreneurship like an insurance policy, because an entrepreneur has the possibility of a fresh start after a failure and can, for example, start up a new venture. In the start-up scene, anecdotes of entrepreneurs who rebounded after initial failures are plentiful. Stephan Uhrenbacher's story is a classic example: his first IT start-up failed, whereas his second venture, Qype, was sold for USD 50 million in 2012 (Heinemann 2012). In this respect, a more debtor-friendly personal bankruptcy law, one with a shorter compliance period before the fresh start, for example, makes entrepreneurship more attractive. However, at the same time, risk is shifted to lenders, who can expect to recover less of their credit in the case of a debtor's insolvency. Banks may react by charging higher interest rates as a risk compensation, demanding more collateral, or flat-out rejecting credit applications. Because entrepreneurs rely on external credit to finance their investments, this negative constraint on credit supply may hamper entrepreneurship. Thus, a priori it is unclear whether the insurance effect or the borrowing cost effect dominates and how personal bankruptcy law affects entrepreneurship on balance.

The theoretical literature studies this trade-off in equilibrium models. Jia (2010) finds that the impact of personal bankruptcy law on entrepreneurship is primarily driven by the insurance effect rather than the borrowing cost effect. Thus, more debtor-friendly bankruptcy laws increase entrepreneurial activity. Mankart and Rodano (2015) similarly conclude from a general equilibrium model that a more generous bankruptcy law would increase entrepreneurship in the US. By contrast, Akyol and Athreya (2011) derive from a partial equilibrium model that bankruptcy rules more lenient than the current rules in the US (which are among the world's most generous already) would not change self-employment rates much, whereas rules leaning more pro creditor would result in an increase in self-employment because of the borrowing cost effect. Mankart and Rodano (2015) emphasize that secured credit mitigates the borrowing cost effect, so the diverging results of Akyol and

Athreya (2011) may be due to the omission of secured credit from their model.

Empirical evidence supports the view that the insurance effect dominates and more debtor-friendly personal insolvency laws increase entrepreneurship rates. Fan and White (2003) relate entrepreneurship rates to differences in homestead exemptions across US states in the period 1993–1998. A homestead exemption makes personal bankruptcy law more generous, because homeowners may keep their home up to a certain threshold value after personal bankruptcy (Chapter 7 of US personal bankruptcy law). The authors find that the probability of owning a business is as much as 35 percent higher in states with unlimited, rather than low homestead exemptions.<sup>4</sup> Armour and Cumming (2008) use aggregated data from 15 countries in Europe and North America in 1990–2005. Their results indicate that entrepreneur-friendly bankruptcy laws increase entrepreneurship rates.

Fossen (2014) analyzes the introduction of the Insolvency Code in Germany in 1999, which allowed personal bankruptcy and a subsequent fresh start for the first time, as a quasi-experiment. In a model, he illustrates that potential entrepreneurs are less affected by personal bankruptcy law if they are wealthier. The insurance effect does not benefit them as much, because they still risk losing all their wealth in case of bankruptcy, and at the same time, the borrowing cost effect does not harm them as much, because they can use their own wealth to finance their business or use it as collateral. A difference-in-difference analysis based on household panel data shows that the individual probability of entry into entrepreneurship increased for less wealthy persons relative to more wealthy persons when the Insolvency Code was introduced. This shows that entrepreneurship became more attractive for less wealthy individuals and indicates that the insurance effect outweighs the borrowing cost effect.

There is also evidence of the reaction by banks to more lenient personal bankruptcy laws. Berkowitz and White (2004), again using homestead exemption variation across US states, report that small firms in states with more generous exemptions face higher interest rates

or do not obtain the desired amount of credit.<sup>5</sup> Using firm data, Davydenko and Franks (2008) compare the effects of bankruptcy law in France, Germany, and the UK. The results indicate that banks respond to debtor-friendly codes, with, for example, stricter collateral requirements.

One may expect that more forgiving personal bankruptcy laws also lower the inhibition threshold of debtors to file for bankruptcy. While Agarwal et al. (2005) report that the probability of small business owners filing for bankruptcy is higher in US states with higher homestead exemption levels, Fossen (2014) does not detect any significant effect of the introduction of the German Insolvency Code on the probability of exit out of entrepreneurship.

Dobbie and Song (2015) use half a million bankruptcy filings matched with administrative data to document the impact of debt relief in the US (under Chapter 13 filings). They find that debtor protection has positive effects on earnings and reduces mortality and home foreclosure rates.

The majority of the literature agrees that personal bankruptcy laws are more relevant for entrepreneurship than corporate bankruptcy laws, as emphasized by Cumming (2012); see also White (2006, 2007). Even if entrepreneurs incorporate, creditors often demand personal guarantees from owner-managers of small businesses, which circumvents the limited liability of the corporation and preserves the personal liability of the entrepreneur. Nevertheless, Paik (2013) reports that some entrepreneurs switch the legal form of their businesses in response to changing personal bankruptcy laws. He analyzes a reform of bankruptcy law in the US in 2005, which reduced wealth protection for unincorporated entrepreneurs (White 2006). After the policy change, he observes that potential entrepreneurs became more likely to incorporate in order to seek limited liability.<sup>6</sup> Peng, Yamakawa and Lee (2010) and Lee et al. (2011) are among the few authors who investigate the effect of *corporate* bankruptcy laws on entrepreneurship. Cumming (2012) criticizes these cross-country comparisons for ignoring major reforms in bankruptcy laws in some of the countries featured during the observation

<sup>4</sup> A spatial econometric estimation qualitatively confirms this result (Mathur 2009). Georgellis and Wall (2006) find a nonlinear effect with a positive relationship between homestead exemptions and entrepreneurship rates only in the middle range of exemptions. Primo and Green (2011) report a positive non-monotonic effect of more generous exemptions on self-employment, but with lower levels of innovative entrepreneurship.

<sup>5</sup> Similarly, but not focusing on entrepreneurship, Gropp, Sholtz and White (1997) find that larger exemptions reduce the availability and amount of credit to low-asset households and, at the same time, increase the amount of credit held by high-asset borrowers.

<sup>6</sup> Another adjustment channel might be movement to the informal sector if regulations such as bankruptcy laws become too burdensome for entrepreneurs, especially in developing countries (Van Stel, Storey and Thurik 2007).

period. In Germany, personal bankruptcy law is even more relevant for entrepreneurship relative to corporate bankruptcy law because unincorporated firms are much more important in the German economy compared to the US and most other countries. While the costs of incorporation affect entrepreneurs in general (Klapper, Laeven and Rajan 2006), in Germany, entrepreneurs may be particularly reluctant to change the legal form of their business in response to changes in bankruptcy laws.

In short, a more debtor-friendly personal insolvency law has two opposing effects on entrepreneurship – an encouraging insurance effect and a discouraging borrowing cost effect. The literature on the topic largely supports the view that on balance, the insurance effect dominates, and more forgiving personal bankruptcy laws increase entrepreneurship rates.

This way, more lenient personal bankruptcy laws are also likely to enhance efficiency and social welfare. Forgiving bankruptcy rules encourage experimentation by entrepreneurs: They make it easier to close an unsuccessful business and start a new one (Landier 2005). Moreover, over-optimism on the part of entrepreneurs would lead to under-insurance in the absence of bankruptcy laws that protect the debtors (Parker 2007). Incentives related to effort provision may be even more important. While greater creditor protection increases incentives for entrepreneurs to succeed *before* bankruptcy in order to avoid bankruptcy and thereby reduces moral hazard, more generous bankruptcy laws maintain incentives to exert effort *after* bankruptcy due to limited garnishment of earnings. Ayotte (2007) analyzes this trade-off in a principal-agent model and argues that “fresh start” policies on balance generate social gains by preserving an entrepreneur’s post-bankruptcy incentives.

### Insolvency proceedings for the self-employed in Germany

Prior to 1999 private individuals in debt, including the self-employed, had no chance of finding debt relief other than by paying all their open liabilities, which was sometimes impossible, especially in many cases of formerly self-employed persons with large amounts of debt. Each individual creditor had the option of seizing assets without regard to other creditors’ claims. The 1999 reform of the German Insolvency Code (InsO) remedied this chaotic state of affairs and opened two potential paths

to debt relief for the self-employed. Now they can either take part in *regular insolvency* proceedings, which were previously offered only to incorporated businesses, but now, in adapted form, are also available to self-employed persons (regular procedure); or they can file for the newly introduced expedited *consumer insolvency* (simplified procedure). The regular procedure is open to debtors who still operate their business at the start of the proceedings, as well as those with many creditors (more than 19) or liabilities due to wage claims by former employees and outstanding social security contributions. Formerly self-employed individuals, who have given up their business, and who do not meet the above criteria, file under the simplified procedure.

In both procedures the path to debt relief is similar. Before a court can get involved, an attempt must have been made to find an agreement on debt relief by creditors and the debtor. If this attempt fails, the debtor can open the proceedings and apply for debt relief. In case of the simplified procedure, another effort is made to resolve the situation via a debt relief plan under the auspices of the court, which can replace votes of minority creditors on the plan. If this plan is rejected as well, the actual proceedings start and the identity of the debtor is made public.

At this stage, creditors, should they have been absent from the proceedings so far, are now liable to make their claims known to the trustee. In the regular procedure, the trustee can also make a motion to exempt earnings and assets due to current self-employment from the insolvency mass (§ 35 Abs. 2 InsO), which serves to keep the debtor in gainful employment. If the debtor has not violated some fundamental rules of the proceedings (false claims, failure to cooperate), debt relief is announced and the compliance period starts.

During the compliance period, the debtor is required to turn over all of his or her assets to the trustee, who distributes them equally among the creditors. This entails tangible assets as well as income above a certain threshold in line with the German social minimum.<sup>7</sup> The current legislation offers three time scales for the compliance period: The compliance period automatically ends after six years. The debtor can speed this up by paying the court fees<sup>8</sup> and reduce the period by one year. The

<sup>7</sup> As of July 2015, 1,080 EUR of monthly income are protected from garnishment for a single person without dependents. The threshold rises by 400 EUR per month for the first dependent and 300 EUR for the second.

<sup>8</sup> Depending on the case, these could lie between 800 EUR to 1,600 EUR (Schuldnerberatungen Berlin 2015).

time to discharge can be cut to three years if the debtor both pays the court fees and 35 percent of the total debt during the compliance period. The options to reduce the time to discharge were introduced in the reform of 2014. After the compliance period has elapsed, debt relief is granted by the court, unless the debtor has not complied in some sense. The formerly insolvent person is finally debt-free and enjoys a fresh start.

The time to discharge of debt varies significantly across countries and time, from no discharge at all (e.g., in Greece, Italy, Spain and Sweden in 2005), to almost immediate (e.g., Canada with nine months) or immediate discharge (e.g., US). In many countries, the number of years until a fresh start is available was reduced within the last 20 years (Cumming 2012). The UK, for example, reduced the time to discharge from four years to one year in 2004. The European Commission (2014, 2) also advocates a new approach to entrepreneurial failure and insolvency and calls on the Member States of the European Union to give “honest bankrupt entrepreneurs a second chance” by providing a fresh start in their insolvency laws. Thus, Germany is following an international trend, although preconditions such as fixed repayment requirements are unusual.

### **Is the conditional discharge of debt after three years effective?**

The 2014 reform of the Insolvency Code in Germany, which allows discharge from debt after three years if the personal debtor is able to repay 35 percent of debt and the court fees within this period, can increase work incentives for debtors who can realistically aim at meeting these conditions, because they want to avoid garnishment of income in the fourth and fifth years. This is especially relevant for debtors who are still self-employed (in the regular procedure) or who are self-employed again (in the simplified procedure) for two reasons. Firstly, the potential earnings of entrepreneurs are often considerably larger than the non-garnishment threshold, which is the social minimum, so the duration of the compliance period makes a big difference for them in terms of disposable income. Secondly, entrepreneurs are comparably flexible in choosing their working hours and effort and thereby their earnings, but the work ethic of the debtor cannot be effectively monitored and corrected by the trustee. However, if personal debt is so large that the 35 percent threshold of debt repayment is out of reach, even with increased effort, work incentives remain very low because of the

earnings garnishment. It is likely that the debt of most insolvent entrepreneurs is too high to give them a realistic chance to achieve discharge of debt after three years. Therefore the 2014 reform is unlikely to have any effect on them. Furthermore, the repayment chances of most entrepreneurs are diminished, since they are likely to have lower earnings during the compliance period due to the increased risk business partners of the insolvent person face in further interactions. The threshold of 35 percent thus appears too high, too rigid and arbitrarily chosen. A flexible threshold that takes into account the specific situation of the debtor could be an option to increase work incentives during the compliance period, especially for insolvent entrepreneurs, which would also be in the interest of the creditors. Lowering or abolishing the threshold should also be considered. Estimating the responsiveness of labor supply given a change in the threshold, especially by entrepreneurs, is a challenge for future empirical research.

### **Trends in entrepreneurship and bankruptcies**

The German Federal Statistical Office provides aggregate statistics originating from the courts about the opening of insolvency proceedings. These inform us of the willingness of individuals to start insolvency proceedings, but not of the outcomes of the proceedings. Most, but not all of the simplified proceedings opened result in a compliance period. Roughly one percent of the proceedings are rejected due to insufficient assets of the debtor. This share remained stable throughout the period considered here.

Figure 1 shows the trends in the numbers of insolvency proceedings opened by consumers and the (formerly) self-employed. Consumer bankruptcies increased strongly between 2002 (the first year with data available on the formerly self-employed) and 2007, presumably due to slow adjustment to the new Insolvency Code in 1999. The (much weaker) increase in the number of personal insolvency proceedings by the self-employed during this time can thus also be explained by slow adjustment. After a dip in 2008, the economic crisis was accompanied by a moderate increase in bankruptcies by consumers in 2009–2010, but only a small increase in bankruptcies by the self-employed in 2009 (this can be seen more clearly in Figure 2 because of the difference in scales). From 2011 onwards, we see a decline in proceedings opened both by consumers and self-employed persons. While the numbers of personal bankruptcy proceedings by the self-employed are far lower

Figure 1



than consumer bankruptcies, they are economically significant, as more debt is often dealt with. It is apparent that the curve for the (formerly) self-employed does not track the massive increases of the consumer curve from 2003 to 2007. The main reason is obviously that there are far less self-employed persons than consumers in Germany, but there may also be behavioral differences. Many consumer insolvencies involve debtors that receive very low incomes, often already at the social minimum, easing the step into personal insolvency proceedings, whereas earnings garnishment during the compliance period is typically more painful for the self-employed.

Figure 2

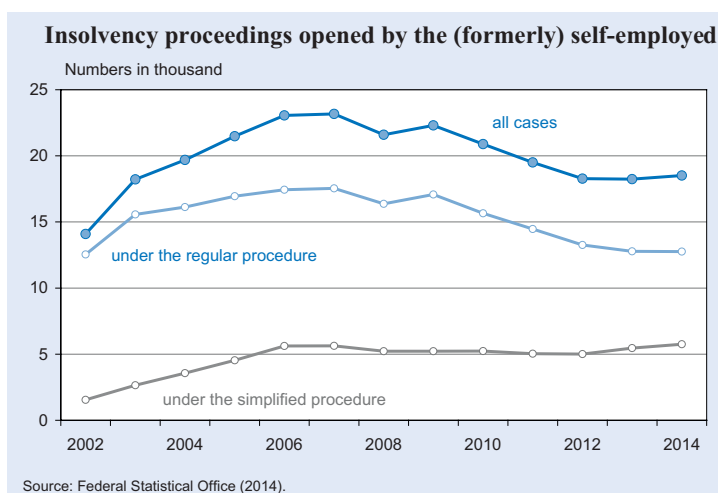
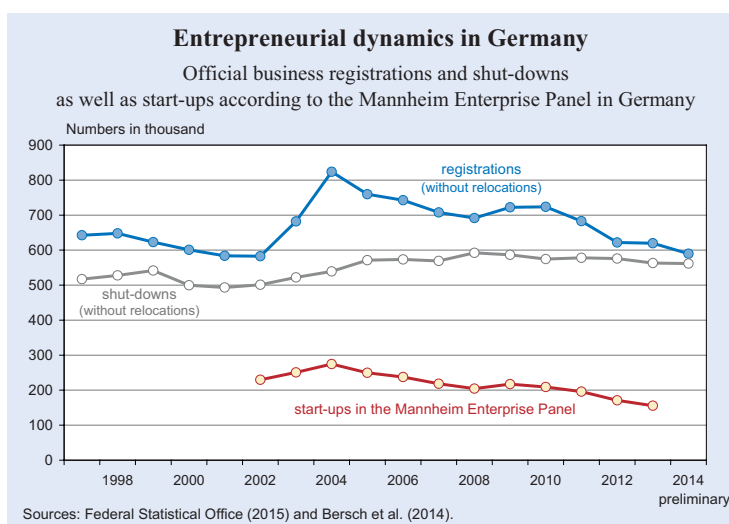


Figure 2 displays the number of opened insolvency proceedings for the (formerly) self-employed. We observe that the majority of cases falls under the regular procedure, indicating that many self-employed continue operating their business or have a complex structure of liabilities. This highlights that for the self-employed, besides the introduction of consumer bankruptcy proceedings, an important part of the introduction of the Insolvency Code in 1999 was the possibility of using the regular insolvency proceedings that were previously available for corporations only. The upward trend from 2002 to 2007 is more pronounced for the simplified procedure than for the regular procedure, and only the latter exhibits a decreasing trend from 2010 to 2013. Filings for the simplified procedure by the self-employed increase marginally in 2014, which might reflect a slight response to the 2014 reform that conditionally shortened the time to discharge, but this is far

Figure 3



from clear, because the upward trend started as early as 2013. It is very likely that the policy change is not going to have a notable effect because most insolvent self-employed persons cannot meet the requirement to repay 35 percent of debt within three years to qualify for an earlier fresh start.

Figure 3 shows the numbers of business formations and shut-downs in Germany according to the German Federal Statistical Office (2015) and business start-ups as reported by Bersch et al. (2014) based on the Mannheim Enterprise Panel (MUP). The numbers of the Federal Statistical Office are based on administrative business registrations and dissolutions, excluding location changes. The MUP is constructed from data provided by Creditreform, Germany's largest credit rating agency. Therefore, it covers companies with sufficient economic activity to be noticed and registered by Creditreform and mostly excludes micro and sideline businesses (Bersch et al. 2014). This explains the much lower level of MUP start-ups as compared to official firm formations. However, the time trends of the two curves look similar, so qualitatively both time series seem to reflect the same underlying entrepreneurial dynamics. MUP data is only available for 2002–2013, so we use the official data to inspect the longer period that includes the reforms of the Insolvency Code in 1999 and 2014.

A marked upward spike in start-ups occurred in 2004, after a public start-up subsidy scheme for the unemployed was introduced in 2003. This start-up subsidy may also account for parts of the upward trend in insolvency procedures by the self-employed around the same time and thereafter. Since 2004 the start-up curve has been declining slowly; in 2006, the start-up subsidy for the unemployed was reformed and generally made less attractive and harder to obtain. The curve of shut-downs exhibits a fairly stable trend. There are no visible effects of the 1999 or 2014 reforms of the Insolvency Code on entrepreneurial activity. However, since other influences are not controlled in these aggregate statistics, they may hide significant effects for sub-groups of entrepreneurs, e.g., those with low personal wealth levels (Fossen 2014).

### Concluding remarks

A growing body of theoretical and empirical literature shows that more debtor-friendly personal bankruptcy laws increase entrepreneurial activity. The possibility

of a partial discharge of debt and a fresh start after insolvency limits the downside risk of an entrepreneurial venture for business owners with personal liability. This insurance effect of a more lenient personal bankruptcy law seems to outweigh the adverse borrowing cost effect. The latter occurs when lenders charge higher interest rates or demand more collateral when they expect to recover less of their credit in case of a debtor's bankruptcy.

A straightforward way to make personal bankruptcy laws more entrepreneur-friendly is to reduce the time to the discharge of debt. Thus, a reduction of the compliance period from six down to three years is a good idea to stimulate entrepreneurial activity. However, the 2014 reform in Germany only allows a fresh start after three years if the debtor is able to repay 35 percent of the debt within this time and additionally covers the court fees. This requirement seems to be too difficult to meet for most entrepreneurs in trouble. Thus, the 2014 reform did not alter the situation of potential or actual entrepreneurs in a meaningful way. The aggregate trends in opened insolvency procedures by the self-employed or business registrations do not show any notable reactions to the 2014 reform. Dropping or alleviating the rigid preconditions for a quicker fresh start, as in other innovation-driven economies, would encourage more persons in Germany to take a risk and become entrepreneurs.

### References

- Agarwal, S., S. Chomsisengphet, C. Liu and L. Mielnicki (2005), "Impact of State Exemption Laws on Small Business Bankruptcy Decision", *Southern Economic Journal* 71, 620–35.
- Akyol, A. and K. Athreya (2011), "Credit and Self-employment", *Journal of Economic Dynamics & Control* 35, 363–85.
- Armour, J. and D. J. Cumming (2008), "Bankruptcy Law and Entrepreneurship", *American Law and Economics Review* 10, 303–50.
- Ayotte, K. (2007), "Bankruptcy and Entrepreneurship: The Value of a Fresh Start", *Journal of Law, Economics & Organization* 23, 161–85.
- Berkowitz, J. and M. J. White (2004), "Bankruptcy and Small Firms' Access to Credit", *RAND Journal of Economics* 35, 69–84.
- Bersch, J., S. Gottschalk, B. Müller and M. Niefert (2014), "The Mannheim Enterprise Panel (MUP) and Firm Statistics for Germany", *ZEW Discussion Paper* no. 14–104.
- Byrom, S. (1729), *An Irrefragable Argument Fully Proving, That to Discharge Great Debts is Less Injury, and More Reasonable, than to Discharge Small Debts*, Printed for the Benefit of the Author, London. Available on Google Books.
- Cumming, D. J. (2012), "Measuring the Effect of Bankruptcy Laws on Entrepreneurship Across Countries", *Journal of Entrepreneurial Finance* 16, 80–6.

- Davydenko, S. A. and J. R. Franks (2008), “Do Bankruptcy Codes Matter? A Study of Defaults in France, Germany, and the U.K.”, *Journal of Finance* 63, 565–608.
- Dobbie, W. and J. Song (2015), “Debt Relief and Debtor Outcomes: Measuring the Effects of Consumer Bankruptcy Protection”, *American Economic Review* 105, 1272–311.
- European Commission (2014), “Commission Recommendation of 12.3.2014 on a New Approach to Business Failure and Insolvency”, C(2014) 1500 final, [http://ec.europa.eu/justice/civil/files/c\\_2014\\_1500\\_en.pdf](http://ec.europa.eu/justice/civil/files/c_2014_1500_en.pdf).
- Fan, W. and M. J. White (2003), “Personal Bankruptcy and the Level of Entrepreneurial Activity”, *Journal of Law and Economics* 46, 543–67.
- Federal Statistical Office (2014), *Statistik zur Überschuldung privater Personen*, Fachserie 15 Reihe 5.
- Federal Statistical Office (2015), *Gewerbeanzeigen*, Fachserie 2 Reihe 5.
- Fossen, F. M. (2014), “Personal Bankruptcy Law, Wealth, and Entrepreneurship: Evidence from the Introduction of a ‘Fresh Start’ Policy”, *American Law and Economics Review* 16, 269–312.
- Georgellis, Y. and H. J. Wall (2006), “Entrepreneurship and the Policy Environment”, *Federal Reserve Bank of St. Louis Review* 88, 95–111.
- Gropp, R., J. K. Scholz and M. J. White (1997), “Personal Bankruptcy and Credit Supply and Demand”, *Quarterly Journal of Economics* 112, 217–51.
- Heinemann, M. (2012), „Failcon: Scheitern als Chance“, Tagesspiegel, 15 November, Online edition, <http://www.tagesspiegel.de/wirtschaft/failcon-scheitern-als-chance/7390378.html> (accessed 3 September 2015).
- Jia, Y. (2010), “The Impact of Personal Bankruptcy Law on Entrepreneurship”, *Working Paper*, <http://dx.doi.org/10.2139/ssrn.1700804>.
- Klapper, L., L. Laeven and R. Rajan (2006), “Entry Regulation as a Barrier to Entrepreneurship”, *Journal of Financial Economics* 82, 591–629.
- Landier, A. (2005), “Entrepreneurship and the Stigma of Failure”, *Working Paper*, <http://dx.doi.org/10.2139/ssrn.850446>.
- Lee, S.-H., Y. Yamakawa, M. W. Peng and J. B. Barney (2011), “How Do Bankruptcy Laws Affect Entrepreneurship Development Around the World?”, *Journal of Business Venturing* 26, 505–20.
- Mankart, J. and G. Rodano (2015), “Personal Bankruptcy Law, Debt Portfolios, and Entrepreneurship”, *Deutsche Bundesbank Discussion Paper* no. 28.
- Mathur, A. (2009), “A Spatial Model of the Impact of Bankruptcy Law on Entrepreneurship”, *Spatial Economic Analysis* 4, 25–51.
- Paik, Y. (2013), “The Bankruptcy Reform Act of 2005 and Entrepreneurial Activity”, *Journal of Economics & Management Strategy* 22, 259–80.
- Parker, S. C. (2007), “Law and the Economics of Entrepreneurship”, *Comparative Labor Law and Policy Journal* 28, 695–716.
- Peng, M. W., Y. Yamakawa and S.-H. Lee (2010), “Bankruptcy Laws and Entrepreneur-Friendliness”, *Entrepreneurship Theory and Practice* 34, 517–30.
- Primo, D. M. and W. S. Green (2011), “Bankruptcy Law and Entrepreneurship”, *Entrepreneurship Research Journal* 1, 1–20.
- Schuldnerberatungen Berlin (2015), “Privatinsolvenz: Kosten – fallen immer an”, <http://www.schuldnerberatungen-berlin.de/privatinsolvenz-kosten/> (accessed 29 September 2015).
- Van Stel, A., D. J. Storey and A. R. Thurik (2007), “The Effect of Business Regulations on Nascent and Young Business Entrepreneurship”, *Small Business Economics* 28, 171–86.
- White, M. J. (2006), “Bankruptcy and Small Business—Lessons from the US and Recent Reforms”, *CESifo DICE Report* 4, 22–6.
- White, M. J. (2007), “Bankruptcy Law,” in A. M. Polinsky and S. Shavel, eds., *Handbook of Law and Economics*, Elsevier, North-Holland Publisher.